**Amendments to the Specification:**

Please amend paragraph 0062 as follows:

FIG. 5 shows stent 12 in an unexpanded state in a flattened elevational view. As shown in FIG. 5, stent body 14 has a generally cellular configuration and comprises a generally repeatable series of struts 24 and connectors 26 configured in a predetermined general, overall, or main pattern along the length of stent 12. Struts 24 comprise a pair of longitudinal strut portions 25 joined by a curved portion 27 at the proximal ends. Struts 24 are interconnected by curved portion 29 at the distal ends and formed into rings 28 that extend about the circumference of stent 12. A series of the circumferential rings 28 are spaced apart from one another longitudinally along the entire length of stent 12, and connectors 26 connect rings 28 to each other longitudinally. Connectors 26 extend generally longitudinally between adjacent circumferential rings 28 and connect to the respective curved portions **[[25]]** **27**, 29 of longitudinally adjacent struts 24 of adjacent rings 28. In a preferred embodiment, connectors 26 are generally S-shaped or zigzag-shaped, although other patterns may also be used. Details of patterns that may be used for stent 12 are described more fully in co-pending PCT application IL02/00840, filed Oct. 20, 2002, incorporated herein by reference in its entirety. Furthermore, many other strut and connector patterns may be used, and the present pattern is shown for illustration purposes only.

Please amend paragraph 0070 as follows:

Referring to FIGS. 11 and 12, schematic views are shown of stents 12, 29 of FIGS. 5 and 9, respectively, in the expanded state as implemented at a blood vessel bifurcation. As shown in FIG. 11, stent 19 of the embodiment of FIG. 8 has a generally curved or radial profile along the distal perimeter 45 of branch portion 30 as it extends into branch vessel 4. The generally curved or radial profile is due to the particular geometry of branch portion 30 of stent 19 of the embodiment of FIG. 8. In particular, because all of the branch ring struts 36 of branch ring 32 are of equal length in this embodiment, the distal ends of struts 36 radially expand equidistantly into branch vessel 4, thereby creating a generally curved or radial profile along the distal perimeter 45 of branch portion 30. Referring to FIG. 12, stent 29 of the embodiment of FIG. 9 has a generally tapered, straight or linear profile along the distal perimeter 47 of the branch portion 30 of the stent as it extends into branch vessel 4. The generally straight or linear profile in FIG. 12 is a

result of the particular geometry of branch portion 30 of stent 29 of the embodiment of FIG. 9. In particular, because central strut 42 of branch ring 32 is longer in this embodiment than struts 40, 44 adjacent to strut 42, the distal end of strut 42 extends further into branch vessel 4 than the distal ends of struts 40, 44, as best seen in FIG. 10, thus creating a generally tapered, straight or linear profile along the distal perimeter **<u>47</u>** of branch portion 30. In a preferred embodiment, the linear profile is at a right angle with respect to the axis of branch vessel 4. In alternative embodiments, however, the linear profile may be at any angle with respect to the axis of branch vessel 4. One advantageous feature of the linear profile along the distal perimeter **<u>47</u>** of branch portion 30 shown in FIG. 12 is that if a second stent 51 were to be used in branch vessel 4, the linear profile facilitates better alignment with the second stent and permits coverage of a larger surface area of the branch vessel wall. For example, if a second stent 51 were to be used in combination with stent 12 of FIG. 11, gaps may exist between the two stents at the interface between the radial distal perimeter 45 and an abutting straight or linear edge of a second stent, whereas a close abutting interface may be achieved with stent 29 of FIG. 12.

Please amend paragraph 0076 as follows:

Referring to FIGS. 19-21, another embodiment of a stent 79 is shown having a main stent body 14 and another embodiment of a branch portion 30. FIGS. 19 and 20 show stent 79 in the unexpanded condition where branch portion 30 has not been deployed. FIG. 21 shows the stent 79 in the expanded configuration where the branch portion 30 has been expanded. As shown, main stent body 14 includes a main stent pattern having a generally repeatable ring 28 and connector 26 pattern. Branch portion 30 and the surrounding midsection 80 interrupt the repeatable ring 28 and connector 26 pattern of stent 79. In this embodiment, branch portion 30 is configured to be both radially expandable and longitudinally extendable into the branch vessel and relative to ~~its~~ **<u>the</u>** longitudinal **<u>branch</u>** axis 83 so that, in a preferred embodiment, the branch portion 30 contacts the entire periphery or circumference of the inner wall of the branch vessel in the expanded configuration. In this regard, branch portion 30 preferably provides 360° coverage of the wall of the branch vessel. That is, branch portion 30 can be extended outward with respect to **<u>the</u>** longitudinal axis 81 of stent 79, and can also be expanded radially about **<u>branch</u>** axis 83 so as to contact the vessel (thereby allowing it to be adjustable with respect to vessel size).

Please amend paragraph 0078 as follows:

As shown in FIGS. 19 and 20, two concentric rings, inner ring 86 and outer ring 88, are positioned within structural support member 84 and surround a generally circular central branch opening 34 to provide access to the side branch vessel when stent 79 is in the unexpanded condition. Rings 86 and 88 are interconnected by a plurality of inner connectors 90. Outer ring 88 is connected to structural support member 84 by a plurality of outer connectors 92. Rings 86 and 88 are generally curvilinear members. For example, rings 86, 88 can be defined by undulation petals, prongs, or peaks 94. In a preferred embodiment, each ring 86, 88 ~~have~~ **has** the same number of undulation peaks 94, but the inner ring **86** may be more closely or tightly arranged, as shown. In another preferred embodiment, each ring 86, 88 has eight ~~pedals~~ **petals** or undulation peaks 94, although in alternate embodiments each ring can have any number of undulation peaks, and the number of peaks need not be equal for each ring. The undulation peaks 94 generally include a pair of strut portions 96 interconnected by curved portions 98, and the strut portions themselves are connected to adjacent strut portions by another curved portion. In a preferred embodiment, eight outer connectors 92 extend between structural support member 84 and outer ring 88, and each outer connector 92 is attached at one end to approximately the middle of a strut portion 96 of outer ring 88 and the structural support member 84 at the other end. As shown, outer connectors 92 may also have an undulated shape, although in alternate embodiments outer connectors 92 may have differing shapes. In another aspect of the preferred embodiment, outer connectors 92 may be evenly or symmetrically spaced about the structural support member 84. The inner ring 86 is attached to the outer ring 88 by a plurality of inner connectors 90 and, in a preferred embodiment, eight inner connectors 90 connect the rings. Inner connectors 90 extend from curved portion 98 of outer ring 88 to curved portion of inner ring 86. As shown in FIG. 20, in a preferred embodiment, inner connectors 90 have a simple curved shape. Other quantities, configurations, sizes and arrangements of connectors, rings and spacing can be used depending upon the desired results. Varying the connectors can provide for different amounts of flexibility and coverage. The type of configuration of rings and connectors shown addresses the need for radial and longitudinal expansion of branch portion 30, as well as branch vessel coverage. Other configurations and arrangements for the branch portion can be used in accordance with the invention.

Please amend paragraph 0085 as follows:

Referring to FIG. 35, an alternative embodiment of a stent 240 is shown having an alternate embodiment of a branch portion 30. Stent 240 includes structural support members 244 as a transition between the main stent body 14 and branch portion 30. Support members 244 comprise generally elliptical half portions positioned in an opposing relation with a space 246 therebetween. Support members 244 surround a two concentric ring 248, 250 structure and a central branch opening 252. Rings 248 and 250 are interconnected by a plurality of inner connectors 254. Outer ring 248 is connected to structural support members 244 by a plurality of outer connectors 256. Rings 248, 250 are generally curvilinear members and include undulation petals, prongs, or peaks 258. An auxiliary access opening 255 interrupts rings 248, 250 and provides access to the side branch vessel when stent 240 is in the unexpanded condition. A ring portion 257 extends between outer connectors 256 proximal to auxiliary access opening 255. In this embodiment, auxiliary access opening 255 is generally larger than central branch opening 252 to more readily receive a side sheath therethrough and to allow for greater access to the side branch. Auxiliary access opening 255 is preferably positioned proximal to central branch opening 252 when loaded on a stent delivery system, however auxiliary access opening 255 can have varying positions in alternate embodiments An alternate embodiment of a stent 260 is shown in FIG. 36 that is similar to stent 240 and it additionally includes lateral connecting members 262 that extend through space 246 and connect the outer ring ~~250~~ **248** to struts 264 laterally outside branch portion 30. In this regard, when branch portion 30 is extended into the side branch, struts 264 are pulled radially inward to support the circumference of the ostium. This additional structure improves radial strength and provides additional support to the vessel wall.

Please amend paragraph 0086 as follows:

Referring to FIG. 37, an alternate embodiment of a stent 280 is shown that is similar to stent 260 and includes lateral connecting members 282 that extend through space 246 and connect the outer ring ~~250~~ **248** to struts 284 laterally outside branch portion 30. Struts 284 are generally longitudinal connecting members spanning longitudinally between adjacent strut rings 286, 288. In this embodiment, struts 284 are generally curved members having a general omega shape. Struts

284 have a smaller radius of curvature than struts 264 of stent 240 described above. When branch portion 30 is extended into the side branch, struts 284 are pulled radially inward to support the circumference of the ostium. In addition, the general omega shape and comparatively smaller radius of curvature allow for greater expansion of struts 284 and permits greater movement or expansion of branch portion 30 without affecting deformation of the surrounding midsection 80. In alternate embodiments, other geometries of struts 284 may be used to accomplish the same purpose.

Please amend paragraph 0090 as follows:

Stents 340, 350, 360, shown in FIGS. 43-45, generally include a branch portion 30 similar to stent 320 (FIG. 41) including an outer ring 342, and an inner ring 344. Rings 342 and 344 are interconnected by a plurality of inner connectors 346. Outer ring ~~344~~ **342** is connected to elliptical transition members 348 by a plurality of outer connectors 352. In these embodiments, outer connectors 352 include a subset of distal outer connectors 354, 356, 358 that extend from the distal side of outer ring ~~344~~ **342** to the elliptical transition member on the distal side of branch portion 30. Distal outer connectors 354, 356, 358 are generally S-shaped, zigzag-shaped, or wavelike. In this regard, the wavelike shape of distal outer connectors may be deformed to a greater extent and accommodate more expansion than, for example, a straight outer connector design. In these embodiments, distal outer connectors 354, 356, 358 may generally accommodate large angles of rotation of the distal portion of branch portion 30 into the side branch vessel during implantation. For example, the distal petals 362, 364 may rotate more than 90.degree. during implantation in the side branch vessel.

Please amend paragraph 0096 as follows:

Referring now to FIGS. 25-28, illustrations of the steps of one example of a method for employing a stent according to the invention are shown. By way of example, the method is depicted utilizing stent 12. Methods for positioning such a catheter system within a vessel and positioning such a system at or near a bifurcation are described more fully in co-pending U.S. patent application Ser. No. 10/320,719 filed on Dec. 17, 2002 **and published as US 2003/0181923 A1**, which is incorporated herein by reference in its entirety. As shown in FIG. 25,

a catheter system 120 is positioned proximal to a bifurcation, using any known method. A branch guidewire 122 is then advanced through an opening in the stent and into the branch vessel 4, as shown in FIG. 26. In a preferred embodiment, the opening may be a designated side branch opening, such as an opening formed by the absence of some connectors 26, as described above. Branch portion 30 is adjacent the opening. As shown in FIG. 27, if the side sheath 124 is attached to the main catheter 120, the main catheter 120 is advanced along with the side ~~catheter~~ **sheath** 124. Alternatively, if the side sheath 124 is separate from to the main catheter 120, the second catheter or side sheath 124 is then advanced independently through the opening in the stent and into the branch vessel. Branch portion 30 is positioned over a portion of the lumen of the branch vessel 4 as the side sheath 124 is inserted into branch vessel 4. Referring to FIG. 28, a first balloon 126 located on main catheter 120 is then expanded, causing expansion of the stent body, and a second balloon 128 located on the second catheter or side sheath 124 is also expanded, causing branch portion 30 to be pushed outward with respect to the stent body, thus providing stent coverage of at least a portion of the branch vessel. The balloons are then deflated and the catheter system and guidewires are then removed.